

We claim:

1. A therapeutic composition for treating a human or animal comprising,

5 a compound capable of altering nucleic acid function admixed with a nonionic block copolymer, wherein the block copolymer has the following formula:



10 **POP POE POP**

wherein "b" represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 2,000 and 20,000, and "a" represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90%.

2. The composition of Claim 1, wherein:

"b" represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 750 and 10,000, and "a" represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90%.

3. The composition of Claim 1, wherein:

"b" represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 750 and 20,000, and "a" represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90%.

4. The composition of Claim 1, wherein:

the mean aggregate molecular weight of the portion of the wherein "b" represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is approximately

2500, and "a" represents a number such that the percentage of hydrophile $(C_2H_4O)_a$ is approximately 10%.

5 5. The composition of Claim 1, wherein the compound capable of altering nucleic acid sequence function is selected from genes, oligonucleotides, antisense oligonucleotides, triplex DNA compounds, or ribozymes.

10 6. The composition of Claim 1, further comprising approximately 0.1% to approximately 5% by weight of a surfactant and approximately 0.5% to approximately 5% by volume of an low molecular weight alcohol.

15 7. The composition of Claim 6, wherein the surfactant is Tween 80 and the alcohol is ethanol.

20 8. The composition of Claim 1, further comprising an expression vector, wherein the compound capable of altering nucleic acid sequence function is a nucleic acid sequence contained in the expression vector, and the expression vector is capable of expressing the nucleic acid sequence.

~~9.~~ A method of delivering a compound capable of altering nucleic acid sequence function to a human or animal comprising,

administering to a human or animal a composition comprising a compound capable of altering nucleic acid function admixed with a nonionic block copolymer, wherein the block copolymer has the following formula:



POP POE POP

wherein "b" represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 2,000 and 20,000, and "a" represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90%.

10. The composition of Claim 9, wherein:

"b" represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 750 and 10,000, and "a" represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90%.

11. The composition of Claim 9, wherein:

"b" represents a number such that the molecular weight of the hydrophobe $(\text{C}_3\text{H}_6\text{O})_b$ is between approximately 750 and 20,000, and "a" represents a number such that the percentage of hydrophile $(\text{C}_2\text{H}_4\text{O})_a$ is between approximately 1% and 90%.

12. The composition of Claim 9, wherein:
the mean aggregate molecular weight of the
portion of the wherein "b" represents a number such that the
molecular weight of the hydrophobe (C₃H₆O)_b is approximately
5 2500, and "a" represents a number such that the percentage of
hydrophile (C₂H₄O)_a is approximately 10%.

13. The method of Claim 9, wherein the
compound capable of altering nucleic acid sequence function is
10 selected from genes, oligonucleotides, antisense
oligonucleotides, triplex DNA compounds, or ribozymes.

14. The method of Claim 9, further comprising
approximately 0.1% to approximately 5% by weight of a
15 surfactant and approximately 0.5% to approximately 5% by
volume of an low molecular weight alcohol.

15. The method of Claim 14, wherein the
surfactant is Tween 80 and the alcohol is ethanol.
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16. The method of Claim 9, further comprising
an expression vector, wherein the compound capable of altering
nucleic acid sequence function is a nucleic acid sequence
contained in the expression vector, and the expression vector is
25 capable of expressing the nucleic acid sequence.